

output-select button 452 and bus 455. AV/C controller 455 may also include an optional display 456 for communicating information to a user.

Figure 5 is a flowchart of the steps in a process 500 for selecting and controlling devices in a home network in accordance with one embodiment of the present invention. Process 500 is implemented using AV/C controller 450 of Figure 4A. Although specific steps are disclosed in process 500 of Figure 5, such steps are exemplary. That is, the present invention is well suited to performing various other steps or variations of the steps recited in process 500.

It is appreciated that the steps in process 500 may be performed in an order different than presented, and that not all of the steps in process 500 may be performed.

In step 510 of Figure 5, AV/C controller 450 finds various target devices (sinks and sources). That is, AV/C controller 450 finds the device's node identifier or other such address information. In the present embodiment, AV/C controller 450 scrolls through possible connections using a round-robin approach. That is, for example, a first possible connection is identified, and then in response to input from the user, the next possible connection is identified.

In step 520 of Figure 5, with reference also to Figure 4A, for a selected source device such as VCR 440, output-select button 452 is used to select a

particular output plug. For example, for a connection over network bus 230, serial bus output plug 420 is selected. Bandwidth for the connection is allocated and an isochronous channel number is assigned. Typically, the bandwidth and channel number are provided by the Isochronous Resource Manager (IRM) in an IEEE 1394 AV/C network. The channel number is stored as a state variable so that it can be queried by sink devices (e.g., TV 430) that want to receive the output.

In step 530 of Figure 5, with reference still to Figure 4A as well, for a selected sink device such as TV 430, input-select button 451 is used to select a particular input device (source device) such as VCR 440 and a particular input plug.

In step 540 of Figure 5, AV/C controller 450 can be used to send commands (e.g., volume change, play, record, etc.) to the target devices on the network.

From a user's point of view, AV/C controller 450 functions somewhat like an analog remote control, and as such will be familiar to users and thus user-friendly. However, AV/C controller 450 is a digital controller and thus is significantly different from an analog controller. In addition, AV/C controller 450 has much greater capabilities than an analog controller. AV/C controller provides the capability to function within a digital home network, allowing a user

to set up connections between various devices on the network and to control those devices. The input-select button is provided with additional functionality that causes a query to be performed of state variables on a selected target device. An output-select button is added that provides the functionality to cause  
5 a query to be performed of state variables on a selected target device.

The preferred embodiments of the present invention, method and system for selecting and controlling devices in a home network, are thus described.

While the present invention has been described in particular embodiments, it  
10 should be appreciated that the present invention should not be construed as limited by such embodiments, but rather construed according to the following claims.

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